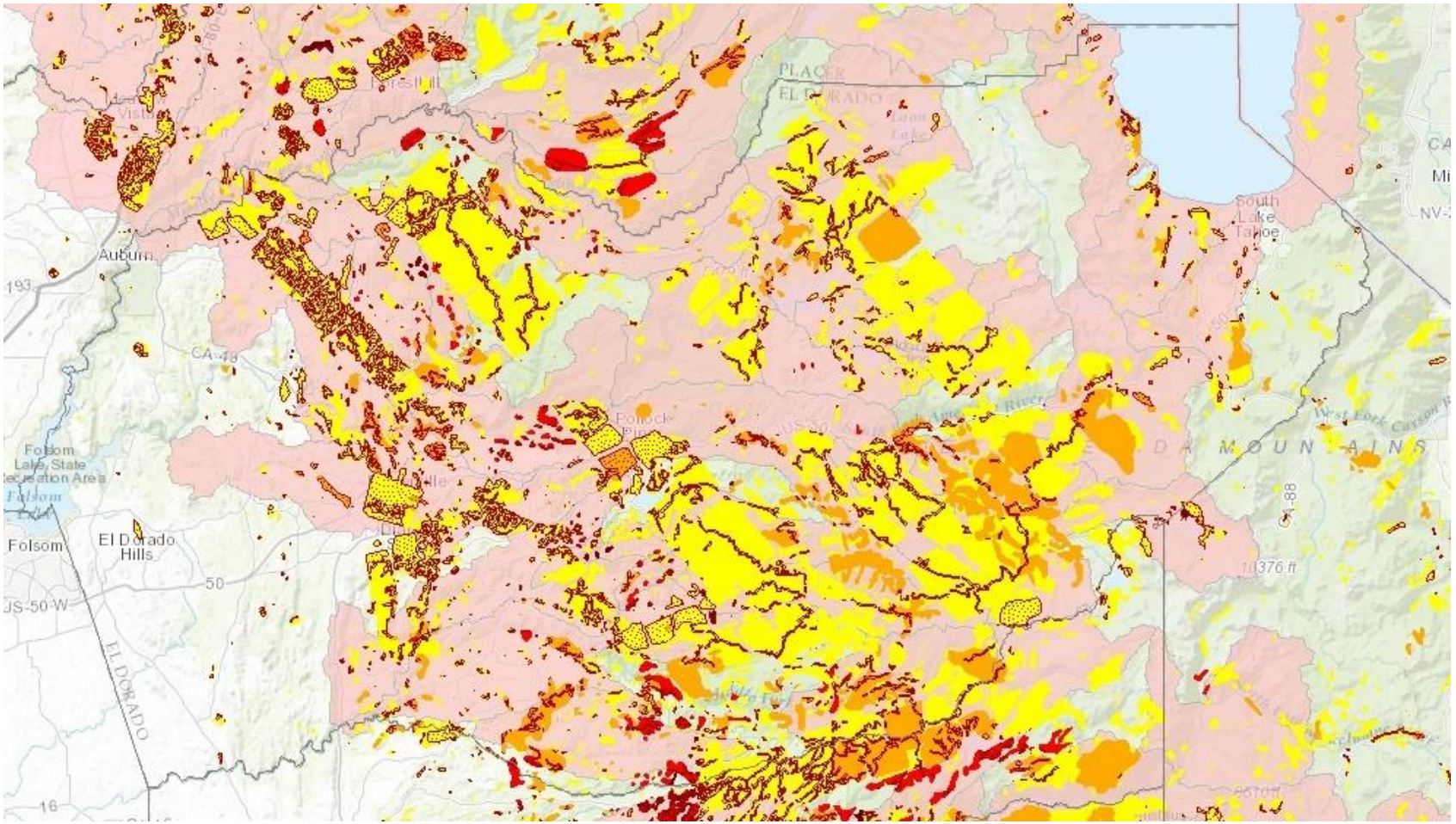
Innovative Approaches to Inventory and Implementation

Data Collection: Field, Cloud, and Desktop

Presented by José Crummett
GIS Manager , County of El Dorado
Featuring GIS products developed by the County GIS staff: Frank Bruijn, Alex Gole, Julie Lopez, Mark LaLoggia, Jim Urquhart, Jeff Whitford, and Linda Wright

Where is the problem?

Where is our problem?



Where is our problem?

From the CLOUD we need the State's data:

High Hazard Zones - Tier 1
High Hazard Zones – Tier 2
Aerial Detection Surveys 2012 to 2015

On the DESKTOP:

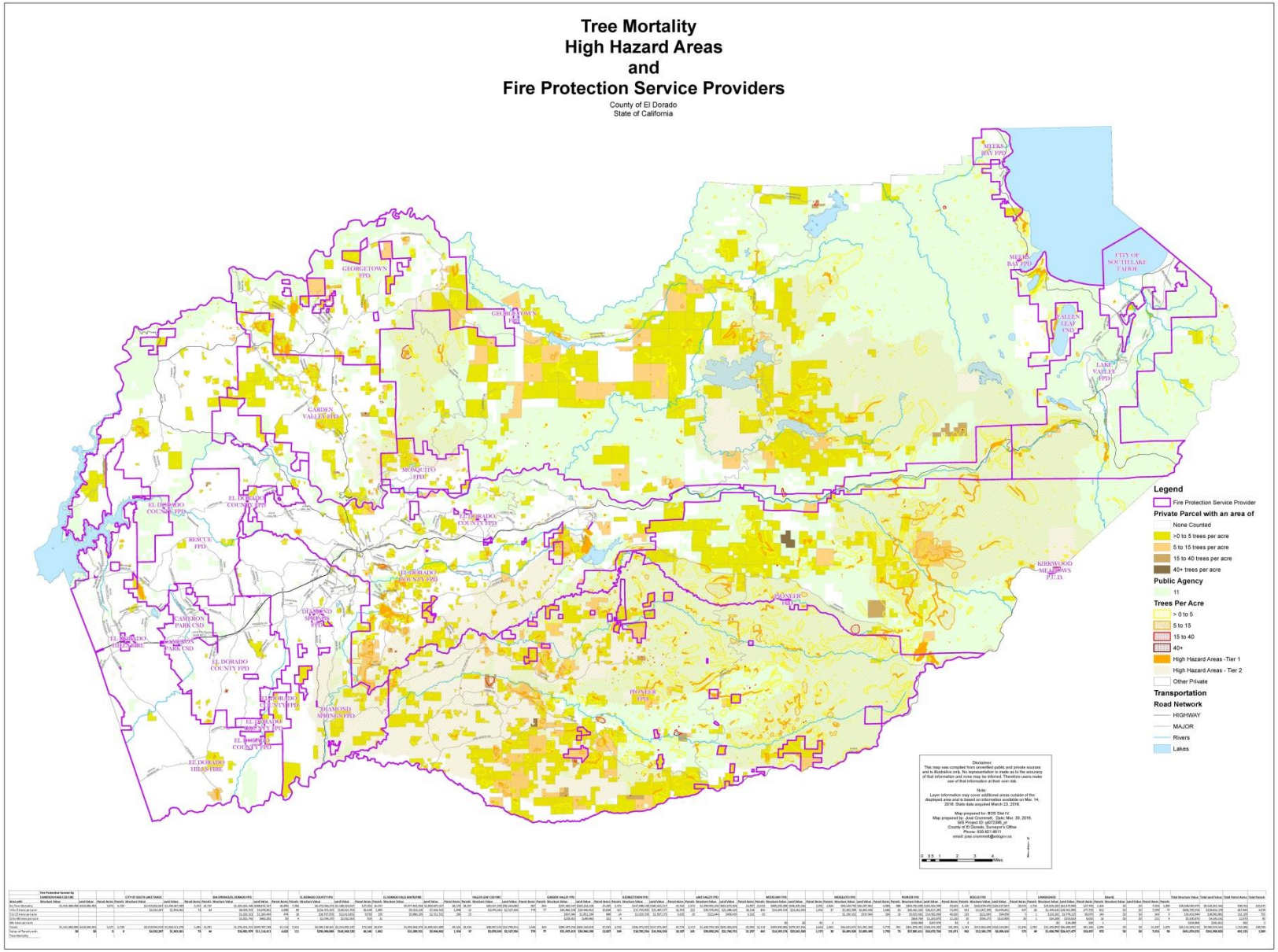
Clip all State layers to County Outline.
Re-project all layers to County projection.
Add local layers: roads, parcels, jurisdictions, facilities.

What, who, how much?

- Tree counts, hazard zones by Fire District, Sup District, by private lands, public lands, by County Road, by elevation band, by road segment, near county facility, sum by count, acres, and value.

- We had to clip, spatial join, intersect, nearest function, buffer, union, dissolve, summarize, and even pivot!

What, who, how much?

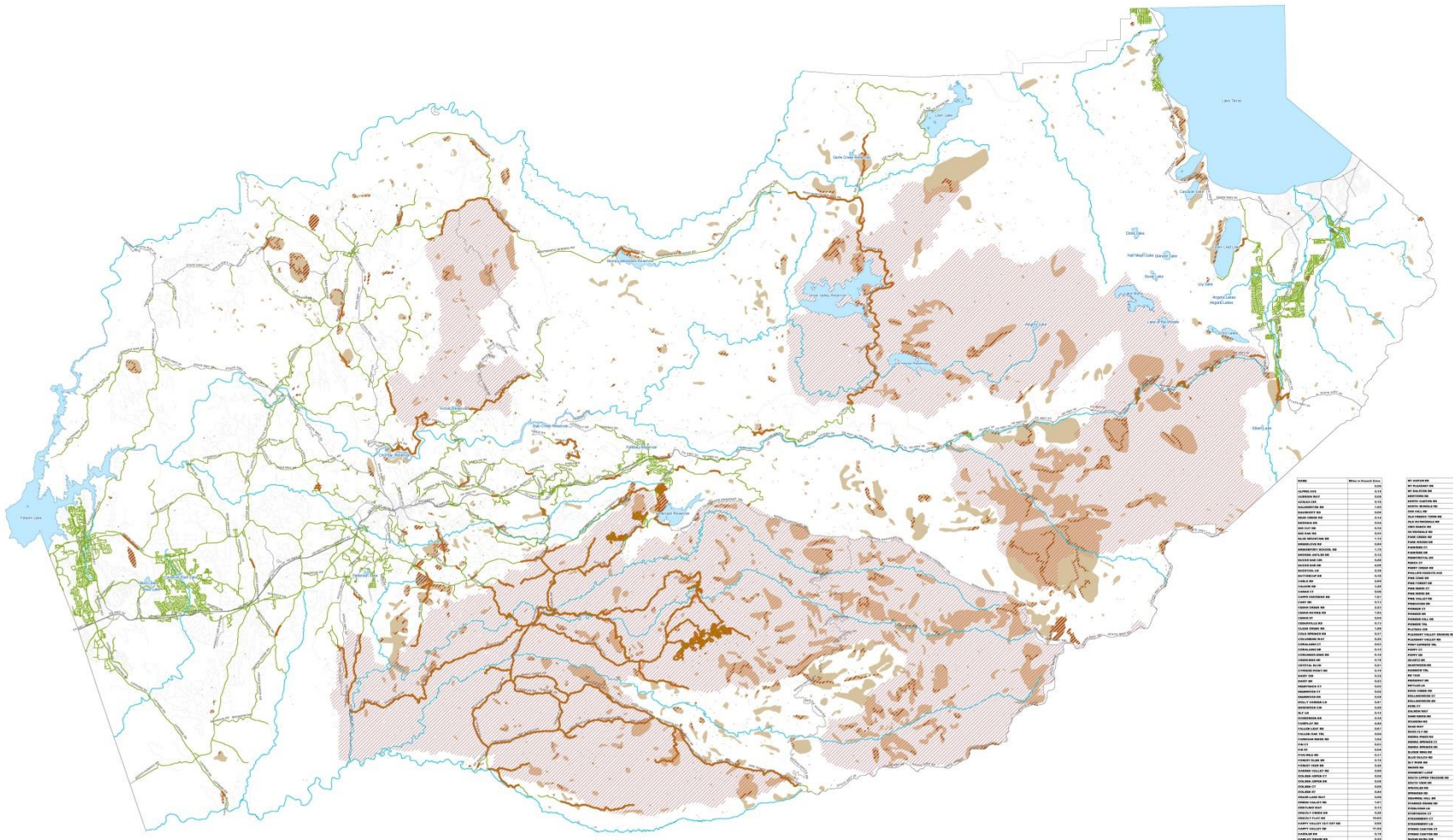


What's the impact ?

DISTRICT	EL DORADO COUNTY FPD			
Area with	**Structure Value**	**Land Value**	**Parcel Acres**	**Parcels**
No Tree Mortality	$4,273,044,273	$2,108,524,027	127,014	26,157
>0 to 5 trees per acre	$214,372,325	$130,921,703	36,428	1,685
5+ to 15 trees per acre	$18,767,593	$12,413,852	9,559	156
15+ to 40 trees per acre	2,954,170	$2,032,565	559	21
40+ trees per acre	$0	$0	0	0
Totals	$4,509,138,361	$2,253,892,147	173,560	28,019
Impact of Tree Mortality	**$236,094,088**	**$145,368,120**	**46,546**	**1,862**

County Roads
in Tier 1 and 2
High Hazard Zones

County of El Dorado
State of California



Map prepared at the request of: Tree Mortality Task Force, May 11, 2016.
Map prepared by: Jose Coummett, Date: May 16, 2016.
GIS Project ID: p070434e
County of El Dorado, Surveyor's Office
Phone: 530.621.6511
email: jose.coummett@edcgov.us

0 0.75 1.5 3 4.5 6 Miles

What's it really like out there?

Where are the trees?

Know where the state says there are dead trees.

Where do we go first?

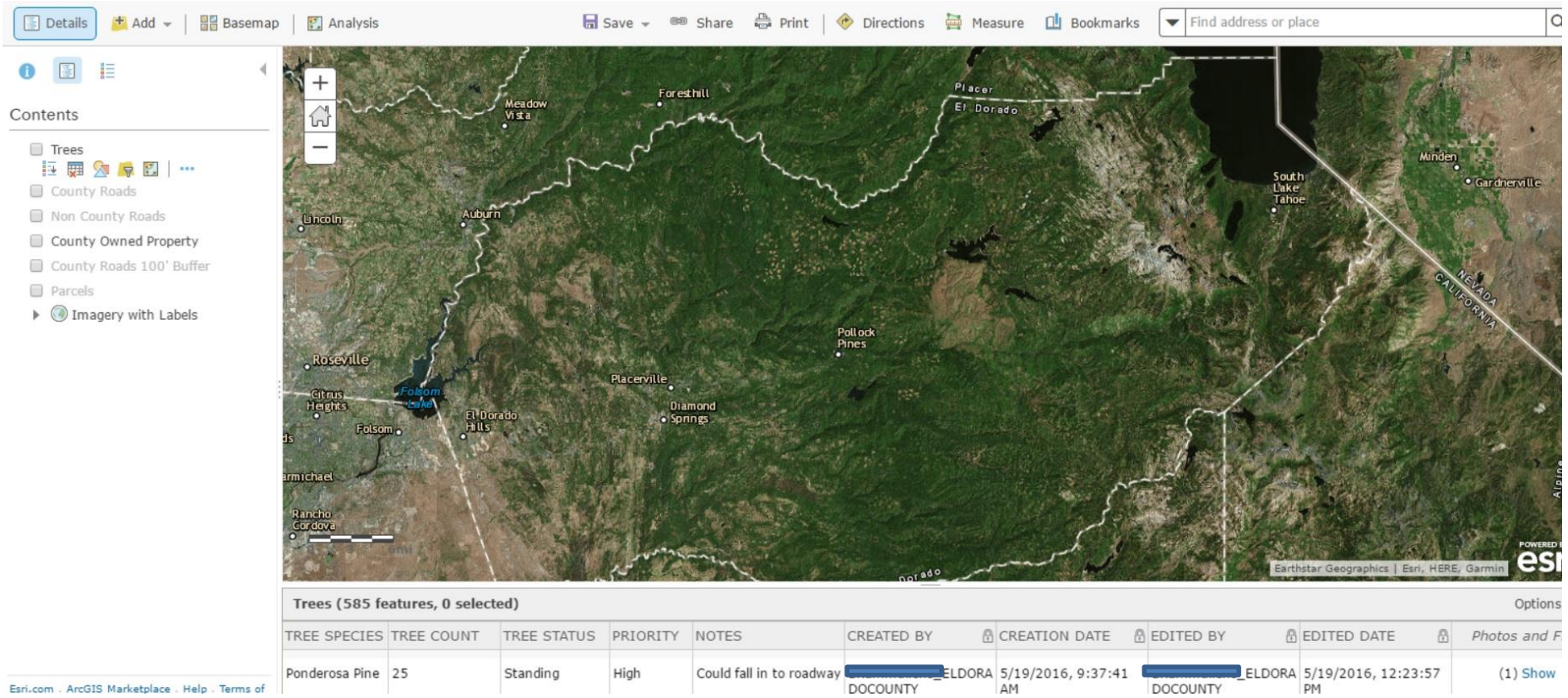
Points awarded for County maintained, school bus routes, transit bus route, traffic volumes, and planned Capital improvement projects.

What do we take to the FIELD ??

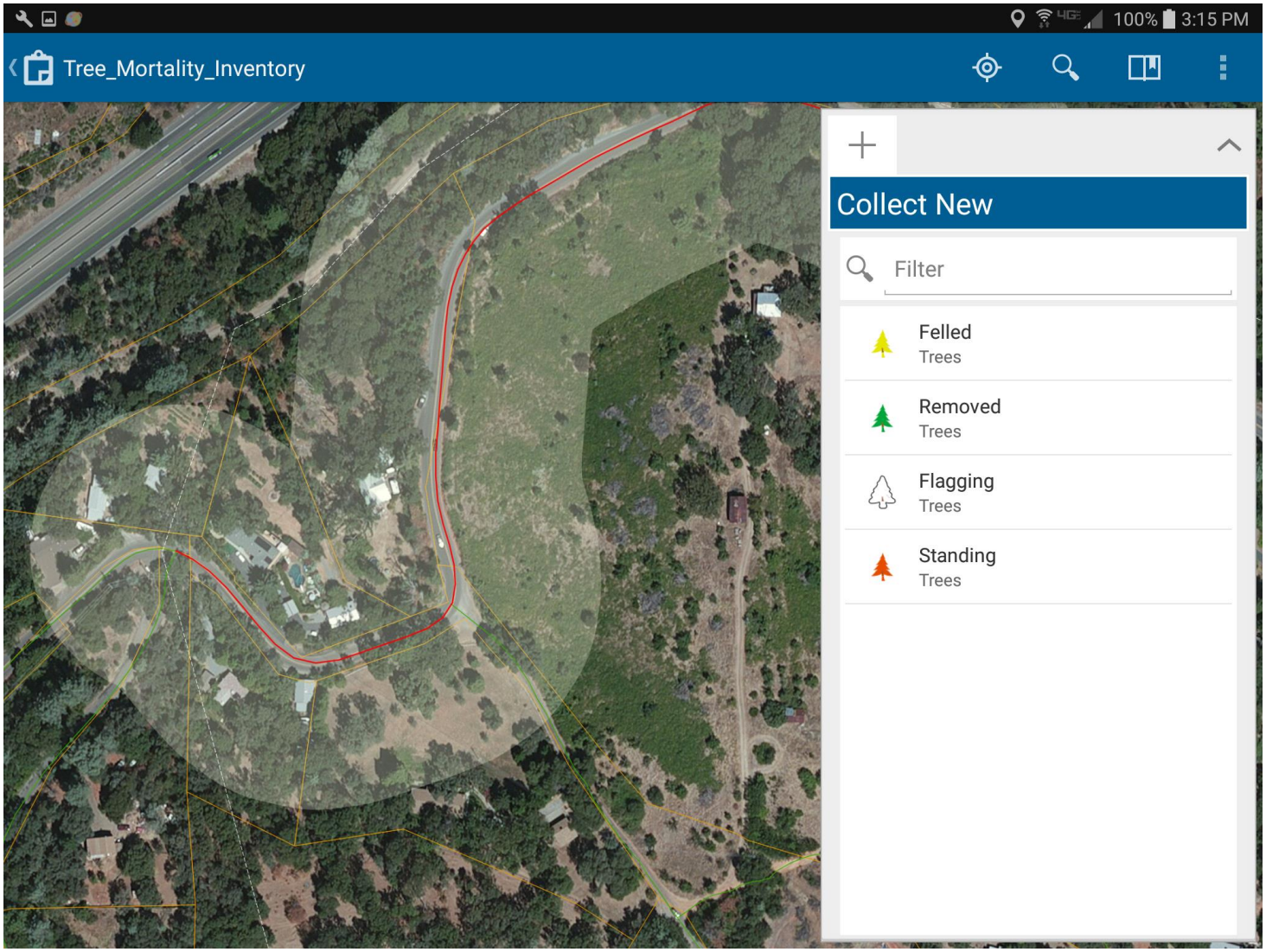
Collector in the CLOUD

- Build data store framework on the DESKTOP.
- All fields either domain drop downs or auto-filled.
- Add other layers.
- Publish database and map frame work to the CLOUD (AGOL).
- Enhance for FIELD presentation – symbols, aliases, attribute format and display.
- Build security framework; groups, roles, users.
- Users download Collector from Google or Apple app stores.

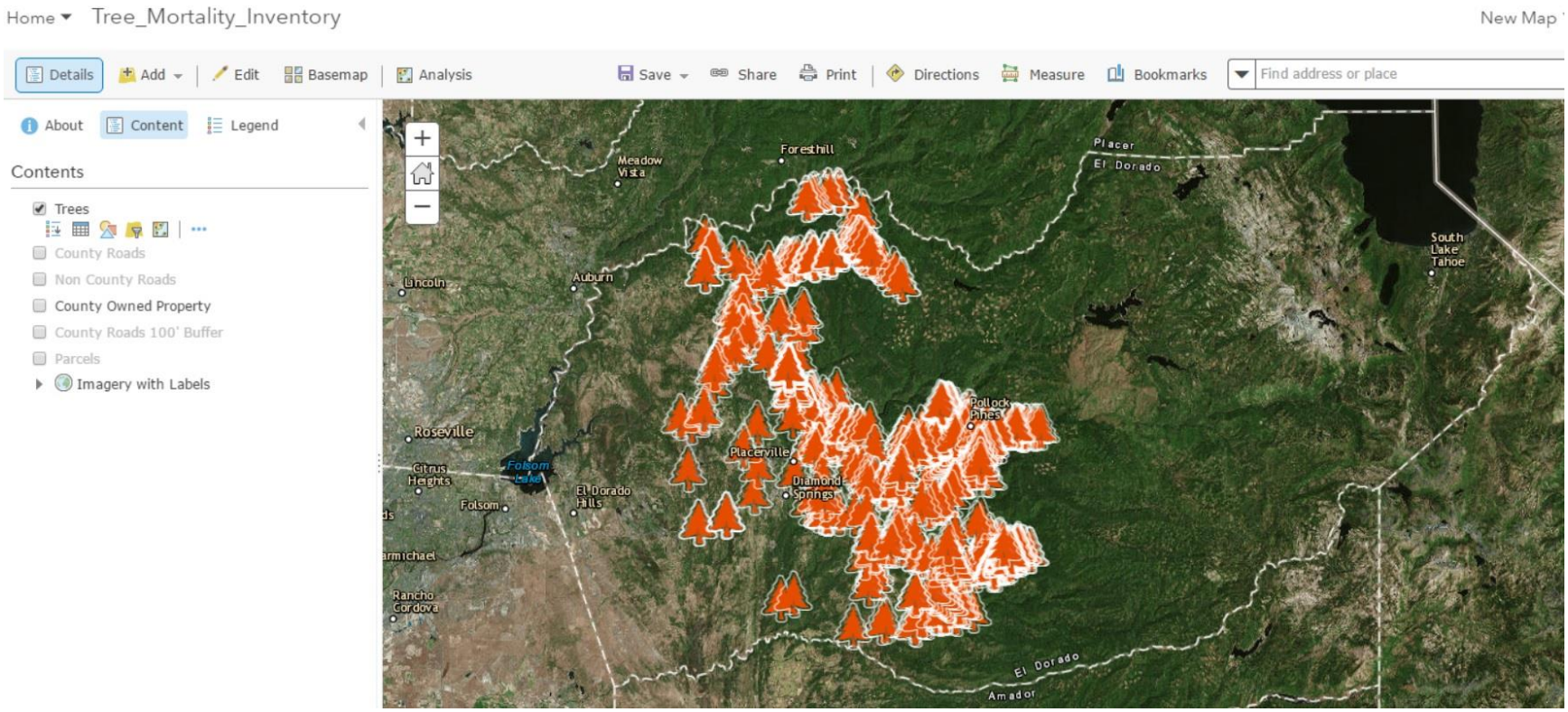
Collector in the CLOUD



Collector in the Field



FIELD Collection



Who is impacted?

- Download point file from CLOUD.
- Spatial Join on nearest to get parcel data and owner.
- Use to notify property owners/community of next steps.
- Can summarize by road segment.
- Can add counts to priority rank.
- Can count by jurisdiction.

Where is that tree?

- Tree Tagging.

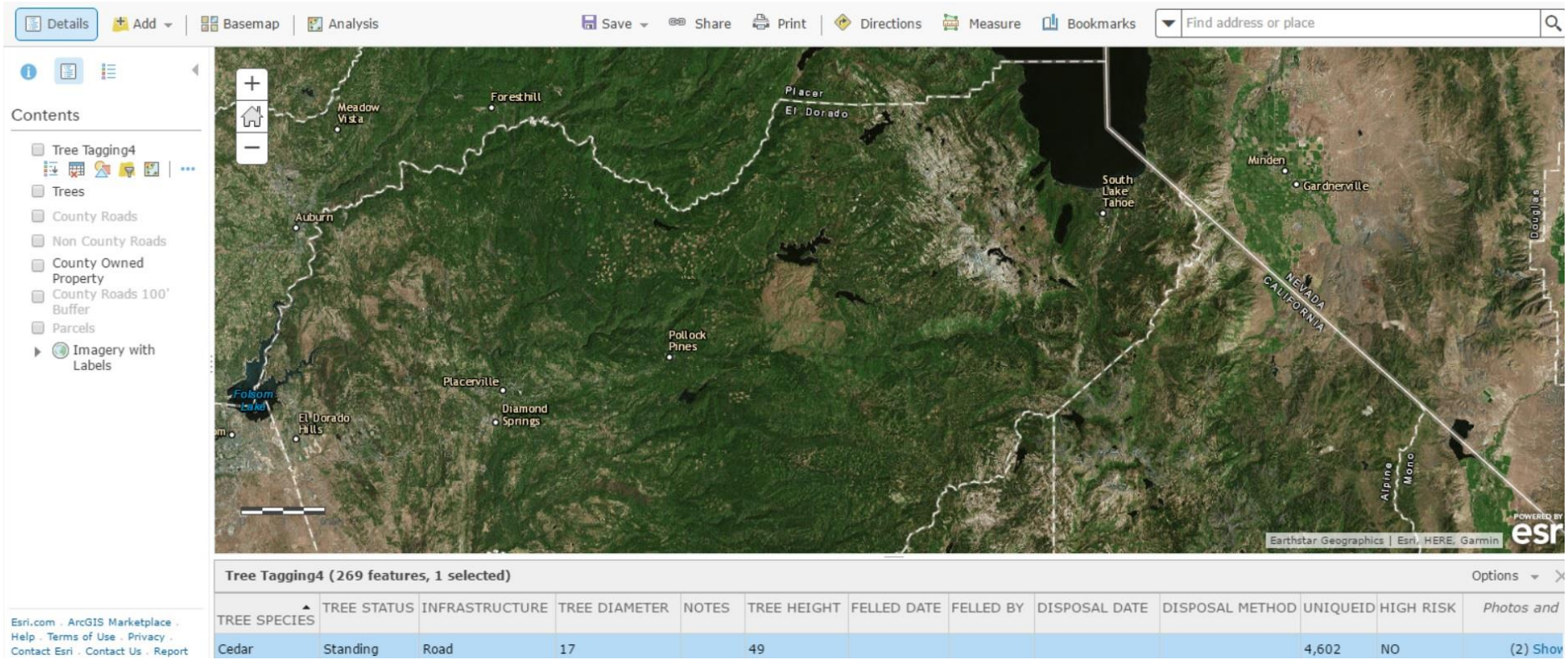
  New data requirements.

  New protocols.

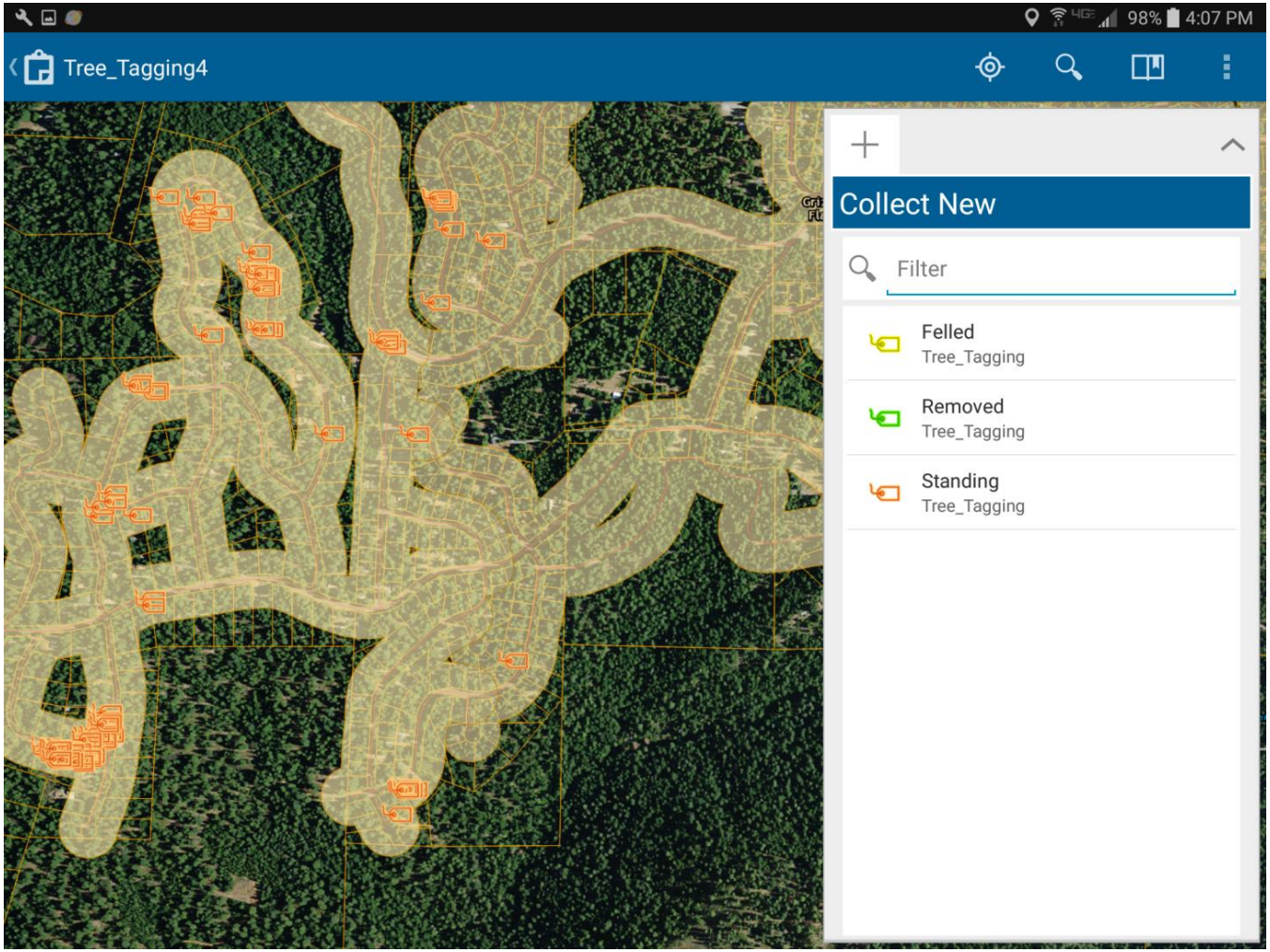
  New users.

  New FIELD devices.

Where is that tree?

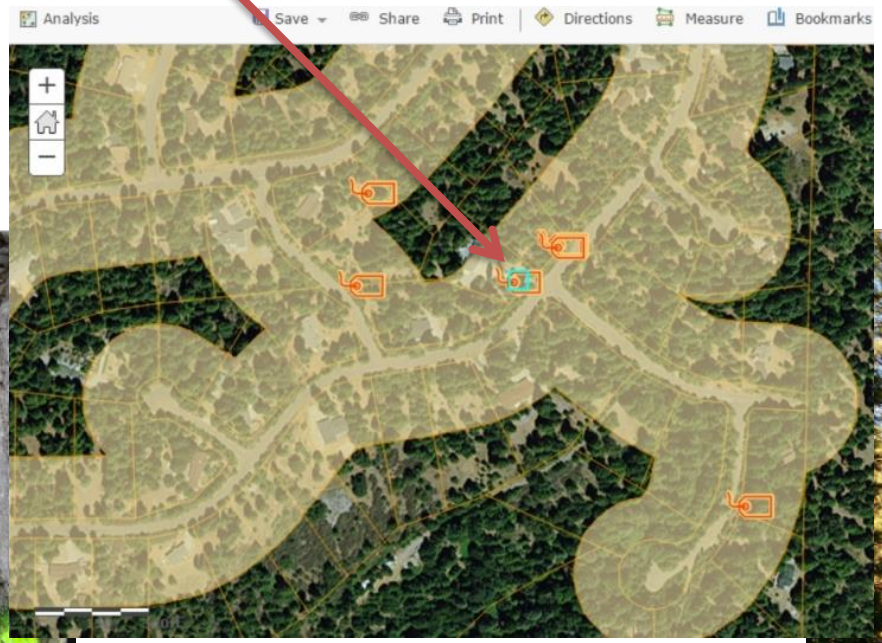


Tree Tagging in the FIELD



Eureka!


4602


Analysis
Save
Share
Print
Directions
Measure
Bookmarks